The Claims

1. In a method of infusing a dye into the surface of an article formed of a plastic material, wherein the surface of the plastic article is contacted with a solution comprising one or more dyes dissolved in one or more solvents each aggressive to the plastic material and wherein the article is subsequently heated to evaporate the solvent or solvents, the step comprising dissolving in the solvent or solvents prior to contacting the surface of the article one or more substances each capable of plasticizing the plastic material.

2. The method of Claim 1, wherein each solvent has a solubility parameter measured in $(cal/cm^3)^{0.5}$ which is within plus or minus unity of that of the plastic material.

3. The method of Claim 1, wherein the solution is devoid of a solvent non-aggressive to the plastic material.

4. The method of Claim 1, wherein the solution contains at least 1% by weight of said substance or substances.

5. The method of Claim 1, wherein the dye is selected from the group consisting of photochromic dyes, cosmetic tinting dyes, infrared absorbing dyes, laser radiation absorbing dyes, ultraviolet absorbing dyes, and combinations thereof.

6. The method of Claim 1, wherein the article, prior to contact with the solution, contains no substance capable of plasticizing the material.

7. The method of Claim 1, wherein the article is immersed in the solution.

8. The method of Claim 1, wherein said surface is contacted for at least 10 seconds.

9. The method of Claim 1, wherein said surface is contacted for not more than one minute.

10. The method of Claim 1, wherein the article is heated during a first time interval from a first temperature to a second elevated temperature, less than the glass transition temperature of the plastic material, and then cooled during a second time interval shorter than said first time interval from the second elevated temperature to the first temperature.

11. A dyed article including in combination an article formed of a plastic material having a surface layer with a depth of the order of magnitude of 75 to 150 microns, said surface layer being infused with significant amounts of one or more dyes and one or more substances each capable of plasticizing the plastic material.

12. An article as in Claim ~~14~~ 11 wherein the surface layer contains a trace amount of one or more solvents each aggressive to the plastic material.

13. The article of Claim ~~14~~ 11, wherein the dye is selected from the group consisting of photochromic dyes, cosmetic tinting dyes, infrared absorbing dyes, laser radiation absorbing dyes, ultraviolet absorbing dyes, and combinations thereof.

14. An article, as in Claim 11 wherein the article contains no substance capable of plasticizing the material other than in said surface layer.

15. An article as in Claim 12 wherein each solvent has a solubility parameter measured in $(cal/cm^3)^{0.5}$ which is within plus or minus unity of that of the plastic material.

16. An article as in Claim 12 wherein the surface layer is devoid of a solvent non-aggressive to the plastic material.